Caltrans Maintenance Storm Water Pollution Prevention Bulletin

Minimizing Pollutant Discharges

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The most common pollutants that can discharge from Maintenance Facilities in storm water include sediment, litter, debris, and chemicals. Recognizing potential pollutants, and managing them properly, is half the battle. Understanding how to minimize those potential discharges is the other half of the task. A task that Caltrans does not take lightly.

This bulletin reviews sources of common pollutants and the appropriate Best Management Practices (BMPs) in the Storm Water Quality Practice Guidelines (SWQPG) that can be implemented to minimize their discharge.

Sediment

The most common pollutants are the dirt and particulate matter that originate in unpaved and unstabilized areas, along slopes and perimeters, and in material stockpiles. BMPs that are effective for preventing discharges from these sources include:

- Frequent sweeping of facility areas that are subject to wind and tracking, with particular attention to areas where sediment accumulates, such as perimeters, corners, and beneath equipment.
- Stabilizing slopes, flat areas, exposed soil areas, and transportation corridors with gravel or pavement, if possible. Otherwise, implement the applicable BMPs that best fit the facilities needs, per Section 2.6-Soil Stabilization of the SWQPG.
- Employing BMPs, from Section 2.4-Sediment Control of the SWQPG, in unstabilized erosion-prone areas and where storm water flows should be slowed to allow sediment to settle and be trapped.
- Designating stockpile areas, with perimeter controls and/or plastic covers, away from storm water drain inlets, sensitive water bodies, and storm water flow paths.

Litter and Debris

Office and yard litter may accumulate along the facility perimeter, in corners, and in storm drain inlets due to wind, over-filled trash receptacles and neglect. Typical debris includes paint chips, asphalt, vegetative material (leaves, planting materials, or grass cuttings), and spilled dry materials.

Limiting litter and debris buildup reduces the potential for pollutant discharges and presents a professional and organized public image.

Some standard methods for minimizing discharges polluted with litter and debris include:

- Frequent cleaning and maintenance of the facility.
- Removing litter and debris from drainage grates, flow lines, perimeters, under buildings and equipment, and trash bins on a regular basis in accordance with Section 2.18-Litter and Debris Removal and Section 2.10.2-Solid Waste Management of the SWQPG.
- Locating trash receptacles with signage in convenient locations around the facility to encourage their use.
- Designating trash and debris storage bins away from storm water drain inlets, sensitive water bodies, storm water flow paths, and other areas that are prone to flooding and ponding.
- Securing and closing the lids on receptacles and bins when not in use, per Section 2.24-Maintenance Facility Housekeeping Practices of the SWQPG.

Chemicals

Fuel and other petroleum products, waste oil, asphalt products, pesticides, and paints are a few of the potential sources of chemical pollutants at maintenance facilities. These chemicals pose a significant risk to the environment if not properly stored and maintained.

Methods for managing these materials and wastes to prevent discharges from the facility include:

- Storing all chemicals in proper storage areas, per the BMPs in Section 2.10-Waste Management and Section 2.11-Materials Handling of the SWQPG.
- Appropriate and immediate cleaning and disposal of any spills of these pollutants.
- Minimizing storm water flows through areas that have not been properly cleaned up.

Uncovered asphalt containers such as these may overflow when it rains and could discharge chemical pollutants from the facility.

Caltrans Maintenance MSW Storm Water

Additional information is available in the Caltrans Maintenance Manual, Chapter C-6, or from your District Maintenance Storm Water Coordinator. Questions or comments may be directed to Greg Lockshaw, HQ Storm Water Coordinator, (916) 654-2841, gregory_lockshaw@dot.ca.gov.